Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 2 of the Commission's Rules	)	
to Allocate Spectrum Below 3 GHz for Mobile	)	
and Fixed Services to Support the Introduction of	)	ET Docket No. 00-258
New Advanced Wireless Services, Including Third	)	
Generation Wireless Systems	)	
	)	
Amendment of Parts 1, 2, 27 and 90 of the	)	
Commission's Rules to License Services in the	)	
216-220 MHz, 1390-1395 MHz, 1427-1429 MHz,	)	WT Docket No. 02-8
1429-1432 MHz, 1432-1435 MHz,	)	
1670-1675 MHz, and 2385-2390 MHz	)	
Government Transfer Bands	)	

To: The Commission

COMMENTS OF SPACE IMAGING LLC

Space Imaging LLC ("Space Imaging"), licensee of the IKONOS remote-sensing satellite system, hereby submits these comments in the above-referenced proceeding with regard to the proposal to allow the Department of Defense ("DOD") to use the 2025-2110 MHz frequency band for earth stations at 11 sites that support military space operations (hereinafter telemetry, tracking and command or "TT&C").[1] Space Imaging does not object to this proposed use of 2025-2110 MHz band because there are good public interest reasons for giving DOD the option of moving certain TT&C uplinks into this frequency band. Space Imaging notes, however, that the U.S. commercial remote-sensing satellite industry also uses the 2025-2110 MHz frequency

[1] *Fourth Notice of Proposed Rulemaking in ET Docket No. 00-258 and WT Docket No. 02-8,* released July 7, 2003 (hereinafter "*Fourth NPRM*").

band for critical TT&C uplink operations, and it therefore urges the Commission and DOD to ensure that future DOD deployments in this band will protect the TT&C operations of the U.S. commercial remote-sensing satellite licensees.

I. Introduction

Space Imaging has operated the IKONOS remote-sensing satellite system since 1999 and currently provides a variety of imagery and data products and value-added services for commercial and governmental applications. The company provides products and services used in various industry sectors, including agriculture, transportation, forestry, oil and gas, mining, environmental, telecommunications and real estate, and also serves Federal, state and local governments in connection with defense and intelligence programs, planning and tax assessment, and other projects. The IKONOS remote-sensing satellite system uses X-band spectrum in the 8025-8400 MHz band to downlink data to various ground stations. Space Imaging operates four ground stations in the United States, and regional affiliates operate eleven other ground stations for accessing data in other parts of the world.

The Commission has licensed Space Imaging to use the 2025-2110 MHz frequency band for uplink TT&C operations,[2] and the company operates four TT&C uplinks located in Thornton, Colorado; Fairbanks, Alaska; Norman, Oklahoma; and Garland, Texas. The Commission also has authorized each of the other U.S. commercial remote-sensing satellite systems to perform uplink TT&C operations in the 2025-2110 MHz band.[3] Indeed, in the absence of other viable

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[2] *See* Space Imaging, L.P., *Order and Authorization*, 10 FCC Rcd 10911 (1995) ("*Space Imaging I Order*"), and Space Imaging LLC, *Order and Authorization*, 16 FCC Rcd 7088 (2001) ("*Space Imaging II Order*").

[3] *See* Orbital Imaging Corporation, *Order and Authorization*, 14 FCC Rcd 2997 (1999) ("*Orbital Order*"); EarthWatch Incorporated, *Order and Authorization*, 12 FCC Rcd 21637 (1997) ("*EarthWatch I Order*"), and EarthWatch Incorporated, *Order and Authorization*, 12 FCC

TT&C uplink spectrum, the 2025-2110 MHz frequency band has become an essential spectrum resource for Space Imaging and the other commercial remote-sensing satellite system operators.

The Commission generally has authorized remote-sensing satellite licensees to use the 2025-2110 MHz band for TT&C operations on a non-harmful interference basis to all other systems operating in accordance with the Table of Frequency Allocations.[4] Footnote US347 provides that in the band 2025-2110 MHz, non-Government Earth-to-space transmissions may be authorized in the Earth Exploration-Satellite Services ("EESS") subject to such conditions as may be applied on a case-by-case basis; and that such transmissions shall not cause harmful interference to Government and non-Government stations operating in accordance with the Table of Frequency Allocations.[5] The Commission generally has referred to these authorizing provisions when licensing commercial remote-sensing operators to perform uplink TT&C functions in the 2025-2110 MHz band.

The language of the Commission's remote-sensing orders varies somewhat as to the precise status of the remote-sensing satellite licensees vis-à-vis other authorized users in the 2025-2110 MHz band.[6] The Commission did make clear in each case, however, that it expected

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Rcd 19556 (1997) ("*EarthWatch II Order*"); and AstroVision International, Inc., *Order and Authorization*, 15 FCC Rcd 22299 (2000) ("*AstroVision Order*").

[4] *See, e.g., Space Imaging I Order,* 10 FCC Rcd at 10913; *Space Imaging II Order*, 16 FCC Rcd at 7090; and *AstroVision Order,* 15 FCC Rcd at 22304.

[5] Similar terms appeared in footnote US90 prior to their inclusion in footnote US347. *See* 47 C.F.R. § 2.106 (1998).

[6] *Compare, e.g.,* the *Space Imaging I Order,* 10 FCC Rcd at 10913, *Space Imaging II Order,*16 FCC Rcd at 7090 and *AstroVision Order,* 15 FCC Rcd at 22304 (which state that use of the 2025-2110 MHz band by the remote-sensing licensees shall be on a non-harmful interference basis with respect to all other systems operating on a primary or secondary basis), *with* the *EarthWatch I Order,* 12 FCC Rcd at 21642 (which states that use of the 2025-2110 MHz band by EarthWatch must be on an equal status to all other authorized non-Government systems operating under a primary status in the frequency band) and the *EarthWatch II Order,* 12 FCC

the remote-sensing operator to be able to coordinate its uplink TT&C operations with other authorized users in the band.[7] Today, three commercial remote-sensing satellite systems (Space Imaging, DigitalGlobe (formerly EarthWatch) and Orbimage) are operational and each performs uplink TT&C functions in the 2025-2110 MHz band. The fourth remote-sensing system operator licensed by the Commission, AstroVision, has requested a milestone extension to commence service in 2007, and it also plans to conduct TT&C operations in the 2025-2110 MHz band.

II. DOD Should Consult with the Commercial Remote-Sensing Licensees in Connection with the Deployment of New TT&C Facilities in the 2025-2110 MHz Band

In the *Fourth NPRM*, the Commission proposes to accommodate new Government operations in the 2025-2110 MHz band, specifically to facilitate DOD's deployment of new TT&C transmit earth stations at 11 military sites. Considering the commercial remote-sensing satellite industry's reliance on the 2025-2110 MHz frequency band for critical uplink TT&C operations, the Commission, in conjunction with DOD, should ensure that new DOD operations in this band will protect the uplink TT&C operations of the commercial remote-sensing satellite licensees.

A. The Commission's Proposal

The *Fourth NPRM* proposes new spectrum allocations that would support the relocation of certain Federal Government operations from the band 1710-1755 MHz, thereby clearing this spectrum for nationwide advanced wireless services ("AWS"), including third generation wireless ("3G") systems. The proposal is based on the U.S. Department of Commerce's *2002*

Rcd at 19558 (which states that use of the band by EarthWatch would be on a secondary status to all other authorized non-Government users of a primary status).

[7] *See Space Imaging I Order*, 10 FCC Rcd at 10913; *Orbital Order*, 14 FCC Rcd at 3000; *EarthWatch I Order*, 12 FCC Rcd at 21642; *EarthWatch II Order*, 12 FCC Rcd at 19558; and *AstroVision Order*, 15 FCC Rcd at 22304.

Viability Assessment, wherein the National Telecommunications and Information Administration ("NTIA") urged that DOD be given access to the 2025-2110 MHz band on a co-equal, primary basis for DOD earth stations at selected sites that support DOD space operations.[8] NTIA states that affording DOD co-equal, primary access to the 2025-2110 MHz band for TT&C uplinks may make more spectrum available in the 1755-1850 MHz band for the relocation of Federal Government systems from the 1710-1755 MHz band and for future DOD spectrum requirements.

Specifically, the Commission proposes to revise footnote US346 to permit DOD to operate TT&C transmit earth stations at 11 existing sites requested by NTIA on a co-equal, primary basis with the Broadcast Auxiliary Service, the Local Television Transmission Service and the Cable Television Relay Service in the 2025-2110 MHz band (collectively "2 GHz BAS operations").[9] The proposal would give DOD the option of moving any or all of its TT&C uplinks at the 11 sites up in frequency from 1761-1842 MHz to 2025-2110 MHz in order to clear spectrum in a geographic area for military fixed and mobile systems, including those that must be relocated out of the 1710-1755 MHz band. The Commission believes that this action would provide a reasonable opportunity for clearing the 1710-1755 MHz band for new nationwide AWS uses and that permitting DOD earth station access to the 2025-2110 MHz band would also provide greater use of the 2025-2110 MHz band without a significant impact on incumbent operations. The Commission further notes that, with coordination, DOD earth stations at the 11 sites may successfully share frequencies in the 2025-2110 MHz band with the incumbent 2 GHz

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[8] *See* NTIA's *Report* entitled "An Assessment of the Viability of Accommodating Advanced Mobile Wireless (3G) Systems in the 1710-1755 MHz and 2110-2170 MHz Bands," dated July 22, 2002 ("*2002 Viability Assessment*").

[9] The specific military sites in question are listed in the text of proposed footnote US346. *See Fourth NPRM* at ¶ 26.

BAS operations. The *Fourth NPRM* seeks comment on coordination procedures that can be implemented to achieve this result.[10]

B. DOD Should Consult With Commercial Remote-Sensing Licensees Concerning New TT&C Uplinks At the 11 Military Sites

The *Fourth NPRM* observes that non-Government Earth-to-space EESS transmissions may be authorized in the 2025-2110 MHz band, but otherwise does not discuss the fact that incumbent commercial remote-sensing licensees perform uplink TT&C operations in this spectrum. To the extent new TT&C uplinks will be deployed in the 2025-2110 MHz band at 11 DOD sites, the Commission should require prior consultation by DOD with Space Imaging and the other remote-sensing satellite licensees in order to protect commercial remote-sensing operations from harmful interference. Prior consultations in this context would serve the public interest because it would facilitate coordination and afford protection for the critical TT&C operations of the commercial remote sensing industry.

As noted above, footnote US347 (or predecessor footnote US90) specifically authorizes non-Government EESS transmissions in the 2025-2110 MHz band, including for uplink TT&C operations. Based on this authority, the Commission repeatedly has authorized remote-sensing satellite licensees to use this frequency band to perform TT&C functions. Typically TT&C operations of remote-sensing licensees can be performed using only small slivers of bandwidth. For example, Space Imaging uses a specified frequency at 2042 MHz (primary) and 2052 MHz (backup), in each case with a bandwidth of less than 100 kHz. The TT&C spectrum

[10] The Commission also proposes to permit DOD to operate stations in the fixed and mobile (except aeronautical mobile) services on a secondary basis in the 2025-2110 MHz band at six sites identified by NTIA in the southwestern United States.

requirements of other commercial remote-sensing operators are similarly modest.[11] Furthermore, TT&C transmissions generally are intermittent in nature, thereby affording greater opportunity for frequency coordination with other operators in the band. Finally, earth stations used to transmit TT&C uplink signals are usually large in antenna diameter with correspondingly small beamwidths. This factor significantly aids coordination involving both GSO and NGSO satellites by providing good interference isolation of satellites with relatively small angular separation from the boresight of the transmitting earth station. Thus, new DOD deployments at the 11 military sites should readily be able to coordinate their operations with incumbent remote-sensing licensees as new DOD uses of the 2025-2110 MHz band are implemented. Prior consultations between DOD and the remote-sensing licensees should achieve this objective. Thus, to avoid the risk of interference to remote-sensing system TT&C operations, consultations between DOD and the commercial remote-sensing licensees should be a prerequisite to the proposed DOD operations at these military sites.

Coordination between the planned new DOD uses in the 2025-2110 MHz band and existing remote-sensing system TT&C operations could usefully exploit several techniques without causing any significant burden on the DOD. Ideally, it would be beneficial if DOD actually could avoid using the precise narrow TT&C uplink bands already in use (or planned to be used) by the remote-sensing satellite systems. If co-frequency operation is inevitable, then a decision to use the overlapping frequencies for a GSO (rather than an NGSO) satellite by DOD could significantly reduce interference problems. More detailed investigation of the orbit paths

[11] *See Orbital Order*, 14 FCC Rcd at 2999 (authorizing Orbimage to use the 2092.536-2092.664 MHz band); *EarthWatch II Order*, 12 FCC Rcd at 19558 (authorizing EarthWatch to use a 300 kHz channel at each of the 2085.6875 and 2094.896 MHz center frequencies); and *AstroVision Order*, 15 FCC Rcd at 22301 (authorizing AstroVision to use the 2059.995-2060.005 MHz band and, for contingency TT&C operations, the 2069.995-2070.005 MHz band).

of the remote-sensing satellite systems in relation to the geometry of the DOD earth station-to-satellite path also could be used to minimize the actual interference that could occur in practice.

Remote-sensing satellites that are already in operation cannot be changed to use new TT&C frequencies. The TT&C receivers on board the satellite are fix-tuned to the planned TT&C uplink frequencies, usually by means of a frequency-specified crystal, and there is no opportunity to modify these frequencies once the satellite has been launched. Therefore, requiring consultations with the remote-sensing licensees using the 2025-2110 MHz band will help to ensure that the remote-sensing system operators can continue to perform critical TT&C functions for their in-orbit satellites. NTIA has emphasized DOD's willingness to assume the full burden of coordinating its 11 TT&C earth stations to avoid causing interference with incumbent BAS operations.[12] DOD also should agree to consult with incumbent remote-sensing licensees concerning any new TT&C earth stations at these 11 sites to avoid causing interference to their existing operations.[13]

Finally, the recently-announced U.S. Commercial Remote Sensing Policy ("*U.S. Policy*"), which was issued by the White House on April 25, 2003, provides further support for ensuring that the TT&C operations of remote-sensing licensees are fully protected from harmful interference.[14] The fundamental goal of the *U.S. Policy* is "to advance and protect U.S. national security and foreign policy interests by maintaining the nation's leadership in remote sensing

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[12] *See Fourth NPRM* at ¶ 27

[13] The Commission has mandated prior consultations in other contexts to minimize the impact of interference. For example, it required consultations between GSO FSS and NGSO FSS licensees in the Ku-band to protect critical transfer orbit operations. *See* Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range, *First Report and Order and Further Notice of Proposed Rulemaking*, ET Docket 98-206, 16 FCC Rcd 4096, 4144 (2000).

[14] A copy of the *U.S. Policy* is attached to these Comments.

space activities, and by sustaining and enhancing the U.S. remote-sensing satellite industry."[15] In support of this goal, the U.S. Government will rely to the maximum practical extent on U.S. commercial remote-sensing space capabilities for filling imagery and geospatial needs for military, intelligence, foreign policy, homeland security, and civil uses.[16] Government agencies increasingly have relied on commercial satellite imagery to accomplish critical missions, and the adoption of the *U.S. Policy* reflects the vital role the commercial remote sensing industry already has played--and will continue to play--in achieving U.S. Government objectives.[17] Hence, protecting the commercial industry's critical TT&C operations in the 2025-2110 MHz band will safeguard vital remote-sensing services for commercial and Government customers alike.

CONCLUSION

The U.S. commercial remote-sensing operators have been licensed by the FCC to use the 2025-2110 MHz frequency band for uplink TT&C operations. Given the growing importance of the commercial remote-sensing industry to both commercial and Government users, the Commission, in conjunction with DOD, should ensure that the proposed DOD operations in the 2025-2110 MHz band will not interfere with existing TT&C operations of the commercial remote-sensing licensees. Toward that end, DOD should be required to consult with the remote-

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15 *U.S. Policy* at § II.

16 *Id.*

17 Earlier this year, for example, the National Imagery and Mapping Agency ("NIMA") awarded substantial multi-year contracts (known as "Clearview") to Space Imaging and DigitalGlobe for the acquisition of satellite imagery.

sensing licensees prior to moving TT&C uplinks into this frequency band at the 11 specified sites.

Respectfully submitted,

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November 3, 2003

U.S. COMMERCIAL REMOTE SENSING POLICY

April 25, 2003

FACT SHEET

The President authorized a new national policy on April 25, 2003 that establishes guidance and implementation actions for commercial remote sensing space capabilities. This policy supersedes Presidential Decision Directive 23, U.S. Policy on Foreign Access to Remote Sensing Space Capabilities, dated 9 March 1994. This fact sheet provides a summary of the new policy.

I. Scope and Definitions

This policy provides guidance for: (1) the licensing and operation of U.S. commercial remote sensing space systems; (2) United States Government use of commercial remote sensing space capabilities; (3) foreign access to U.S. commercial remote sensing space capabilities; and (4) government-to-government intelligence, defense, and foreign policy relationships involving U.S. commercial remote sensing space capabilities.

For the purposes of this document:

- "Remote sensing space capabilities" refers to all remote sensing space systems, technology, components, products, data, services, and related information. In this context, "space system" consists of the spacecraft, the mission package(s), ground stations, data links, and associated command and control facilities and may include data processing and exploitation hardware and software; and

- "Commercial remote sensing space capabilities" refers to privately owned and operated space systems licensed under the Land Remote Sensing Policy Act of 1992, their technology, components, products, data, services, and related information, as well as foreign systems whose products and services are sold commercially.

No legal rights or remedies, or legally enforceable causes of action are created or intended to be created by this policy. Officers of the United States and those agents acting on their behalf implementing this policy shall do so in a manner consistent with applicable law.

II. Policy Goal

The fundamental goal of this policy is to advance and protect U.S. national security and foreign policy interests by maintaining the nation's leadership in remote sensing space activities, and by sustaining and enhancing the U.S. remote sensing industry. Doing so will also foster economic growth, contribute to environmental stewardship, and enable scientific and technological excellence.

In support of this goal, the United States Government will:

- Rely to the maximum practical extent on U.S. commercial remote sensing space capabilities for filling imagery and geospatial needs for military, intelligence, foreign policy, homeland security, and civil users;

- Focus United States Government remote sensing space systems on meeting needs that can not be effectively, affordably, and reliably satisfied by commercial providers because of economic factors, civil mission needs, national security concerns, or foreign policy concerns;

- Develop a long-term, sustainable relationship between the United States Government and the U.S. commercial remote sensing space industry;

- Provide a timely and responsive regulatory environment for licensing the operations and exports of commercial remote sensing space systems; and

- Enable U.S. industry to compete successfully as a provider of remote sensing space capabilities for foreign governments and foreign commercial users, while ensuring appropriate measures are implemented to protect national security and foreign policy.

III. Background

Vital national security, foreign policy, economic, and civil interests depend on the United States ability to remotely sense Earth from space. Toward these ends, the United States

Government develops and operates highly capable remote sensing space systems for national security purposes, to satisfy civil mission needs, and to provide important public services. United States national security systems are valuable assets because of their high quality data collection, timeliness, volume, and coverage that provide a near real-time capability for regularly monitoring events around the world. United States civil remote sensing systems enable such activities as research on local, regional, and global change, and support services and data products for weather, climate, and hazard response, and agricultural, transportation, and infrastructure planning.

A robust U.S. commercial remote sensing space industry can augment and potentially replace some United States Government capabilities and can contribute to U.S. military, intelligence, foreign policy, homeland security, and civil objectives, as well as U.S. economic competitiveness. Continued development and advancement of U.S. commercial remote sensing space capabilities also is essential to sustaining the nation's advantage in collecting information from space. Creating a robust U.S. commercial remote sensing industry requires enhancing the international competitiveness of the industry.

IV. Licensing and Operation Guidelines for Private Remote Sensing Space Systems

The Secretary of Commerce, through the National Oceanic and Atmospheric Administration (NOAA), licenses and regulates the U.S. commercial remote sensing space industry, pursuant to the Land Remote Sensing Policy Act of 1992, as amended, and other applicable legal authorities. The Secretary of Defense and the Secretary of State are responsible for determining the conditions necessary to protect national security and foreign policy concerns, respectively. NOAA, in coordination with other affected agencies and in consultation, as appropriate, with industry, will develop, publish, and periodically review the licensing regulations and associated timelines governing U.S. commercial remote sensing space systems.

To support the goals of this policy, U.S. companies are encouraged to build and operate commercial remote sensing space systems whose operational capabilities, products, and services are superior to any current or planned foreign commercial systems. However, because of the potential value of its products to an adversary, the operation of a U.S. commercial remote sensing space system requires appropriate security measures to address U.S. national security and foreign policy concerns. In such cases, the United States Government may

restrict operations of the commercial systems in order to limit coliection and/or dissemination of certain data and products, e.g., best resolution, most timely delivery, to the United States Government, or United States Government approved recipients.

On a case-by-case basis, the United States Government may require additional controls and safeguards for U.S. commercial remote sensing space systems potentially including them as conditions for United States Government use of those capabilities. These controls and safeguards shall include, but not ne limited to: (1) the unique conditions associated with United States Government use of commercial remote sensing space systems; and (2) satellite, ground station, and communications link protection measures to allow the United States Government to rely on these systems. The United States Government also may condition the operation of U.S. commercial remote sensing space systems to ensure appropriate measures are implemented to protect U.S. national security and foreign policy interests.

V. United States Government Use of Commercial Remote Sensing Space Capabilities

To support the goals of this policy, the United States Government shall utilize U.S. commercial remote sensing space capabilities to meet imagery and geospatial needs. Foreign commercial remote sensing space capabilities, including but not limited to imagery and geospatial products and services, may be integrated in United States Government imagery and geospatial architectures, consistent with national security and foreign policy objectives.

With regard to the national security remote sensing space architecture, the Secretary of Defense and the Director of Central Intelligence, in consultation with industry as appropriate, shall:

- Determine which needs for imagery and geospatial products and services can be reliably met by Commercial remote sensing space capabilities;

- Communicate current and projected needs to the commercial remote sensing space industry;

- Competitively outsource functions to enable the United States Government to rely to the maximum practical extent on commercial remote sensing space capabilities for filling imagery and geospatial needs;

- Establish the National Imagery and Mapping Agency (NIMA) as the agency of primary responsibility for acquiring and disseminating commercial remote sensing space products and services for: (1) all national security requirements; and, (2) in consultation with the Secretary of State, all foreign policy requirements.

With regard to civil remote sensing space capabilities, the Secretaries of Commerce and the Interior and the Administrator of the National Aeronautics and Space Administration (NASA), in consultation with other United States Government agencies, and with industry, as appropriate, shall:

- Determine which civil needs can be met by commercial remote sensing space capabilities; and

- Communicate current and projected needs to the commercial remote sensing space industry.

United States Government civil agencies acting individually, or when beneficial, together, shall:

- Competitively outsource functions to enable the United States Government to rely to the maximum practical extent on commercial remote sensing space capabilities for filling civil imagery and geospatial needs;

- Acquire and operate United States Government systems that collect data only when such data (1) are not offered and will not be made available by **U.S.** commercial remote sensing space systems; or **(2)** require collection, production, and/or dissemination by the United States Government due to unique scientific or technological considerations or other mission requirements; and

- Coordinate with NIMA procurement of all U.S. commercial remote sensing data and products that are restricted to United States Government or United States Government-approved users pursuant to NOAA license conditions due to U.S. national security or foreign policy concerns.

Agencies shall allocate the resources required to implement these objectives within the overall policy and resource guidance of the President and available appropriations. Civil agencies may acquire commercial remote sensing space products and services directly, through cooperative arrangements with other civil agencies, or through NIMA. When procuring through another

agency, civil agencies will reimburse the procuring agency, consistent with the Economy Act.

VI. Foreign Access To U.S. Commercial Remote Sensing Space Capabilities

It is in U.S. national security, foreign policy, and economic interests that U.S. industry compete successfully as providers of remote sensing space products and capabilities to foreign governments and foreign commercial users. Therefore, license applications for U.S. commercial remote sensing space exports shall be considered favorably to the extent permitted by existing law, regulations and policy when such exports support these interests.

The United States Government will consider remote sensing exports on a case-by-case basis. These exports will continue to be licensed pursuant to the United States Munitions List or the Commerce Control List, as appropriate, and in accordance with existing law and regulations. The following guidance will also apply, when considering license applications for remote sensing exports:

- The United States Government will take into account exports' potential contribution to achieving the goals of this policy, the overall relationship, particularly the existing defense and defense trade relationship with the proposed recipient nation, and broader U.S. national security, foreign policy, and economic objectives;

- As a general guideline, remote sensing exports that are currently available or are planned to be available in the global marketplace also will be considered favorably;

- Exports of sensitive or advanced information, systems, technologies, and components, however, will be approved only rarely, on a case-by-case basis. These items include systems engineering and systems integration capabilities and techniques, or enabling components or technologies, i.e., items with capabilities significantly better than those achievable by current or near-term foreign systems. The Secretary of State, in consultation with the Secretary of Defense and the Director of Central Intelligence, shall maintain a Sensitive Technology List that includes these items. This list shall be made available to U.S. industry, consistent with national security and foreign policy

concerns. The Department of State shall use the list in the evaluation of requests for exports; and

- Sensitive or advanced remote sensing exports, including but not limited to a sub-set of items specifically identified on the Sensitive Technology List, will be approved only on the basis of a government-to-government agreement or other acceptable arrangement that includes, among other things, end-use and retransfer assurances that protect U.S. controlled technical data, and broader national security and foreign policy needs. Such agreements also may include protections for intellectual property and economic interests. To facilitate timely implementation, the disposition of export license applications will be expedited after completion of such agreements or arrangements.

VII. Government-to-Government Intelligence, Defense, and Foreign Relationships

The United States Government will use U.S. commercial remote sensing space capabilities to the maximum extent practicable to foster foreign partnerships and cooperation, and foreign policy objectives, consistent with the goals of this policy and with broader national security objectives. Proposals for new partnerships regarding remote sensing that would raise questions about United States Government competition with the private sector shall be submitted for interagency review. In general, the United States Government should not pursue such partnerships if they would compete with the private sector, unless there is a compelling national security or foreign policy reason for doing so.

VIII. Implementation Actions

Implementation of this directive will be within the overall policy and resource guidance of the President and subject to the availability of appropriations. Agencies have been directed to complete a series of specific implementation actions within 120 days from the date of this directive.

CERTIFICATE OF SERVICE

I, Vicki Lynne Lyttle, do hereby certify that on this 3rd day of November, 2003, copies of the foregoing "Comments of Space Imaging LLC" were delivered via hand delivery to the following:

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